

REMARKS/ARGUMENTS

Claims 8-13 are pending. The specification has been amended to correct inadvertent typographical errors. Claim 8 has been amended to more clearly describe the claimed subject matter. No new matter has been added.

Rejections under 35 U.S.C. § 112

Claims 8 and 11-13 stand rejected under 35 U.S.C. §112, first paragraph, with respect to alleged “lack of conjunction” in Applicants’ recital of 2’-modifications (Office Action at page 3). Applicants have followed the Examiner’s suggestion to even more clearly describe the claimed subject matter by amending claim 8 to insert the word “or” before “alkyl” in line 3.

Claims 8-13 stand rejected under 35 U.S.C. §112, first paragraph, because the specification allegedly does not describe any oligonucleotides that have “at least two different 2’-substitutions, wherein said different substitutions are selected from halo, azido, amino, alkoxy, thioalkoxy, alkylamino, and alkyl” (Office Action at page 3). Applicants traverse the rejection because it is unsupported by any evidence as to how those skilled in the art would interpret the present specification and, in fact, is directly refuted by the evidence of record.

The declaration of Dr. Sidney M. Hecht submitted herewith demonstrates that those skilled in the art, upon review of the present application, would recognize that Applicants were in possession of the subject matter of claims 8-13, in particular, oligonucleotides having at least two different 2’-substitutions, wherein the different substitutions are selected from

halo, azido, amino, alkoxy, thioalkoxy, alkylamino, and alkyl (Hecht Dec. ¶9). Those of skill in the art would understand, for example, that the specification on page 10 discloses:

Oligonucleotides particularly suited for the practice of one or more embodiments of the present invention comprise 2'-sugar modified oligonucleotides wherein one or more of the 2'-deoxy ribofuranosyl moieties of the nucleoside is modified with a halo, alkoxy, aminoalkoxy, alkyl, azido or amino group.

(Hecht Dec. ¶ 7). In addition, those of skill in the art would appreciate that Example 13 on pages 63-64, and specifically page 64, lines 5-8, discloses oligonucleotides comprising both 2'-deoxy-2'-methylthio (*i.e.*, 2'-thioalkoxy) and 2'-deoxy-2'-O-methyl (*i.e.*, 2'-alkoxy) substituents (Hecht Dec. ¶8). Therefore, those of skill in the art would have understood that the instant specification discloses oligonucleotides having at least two different 2'-substitutions selected from halo, azido, amino, alkoxy, thioalkoxy, alkylamino, and alkyl (Hecht Dec. ¶9).

Because the evidence of record demonstrates that Applicants' specification contains adequate written description of the claimed subject matter (and, in particular, at least two different 2'-substitutions, wherein said different substitutions are selected from halo, azido, amino, alkoxy, thioalkoxy, alkylamino, and alkyl), Applicants request that the rejection under 35 U.S.C. § 112, first paragraph, be withdrawn.

Rejection under 35 U.S.C. §102

Claims 8-13 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,612,215 to Draper et al. (the "Draper patent"). This rejection is based on the Examiner's refusal to acknowledge Applicants' claim of priority in view of the rejections under 35 U.S.C. §112 set forth above. As discussed in response to the section 112 rejections,

the present specification provides more than adequate written description support for the claimed inventions.

This is further supported by the evidence of record which indicates that Applicants had possession of the claimed invention as of a date earlier than the earliest effective filing date of the Draper patent. This is demonstrated, for example, by Application Serial no. 07/853,932, filed March 5, 1992, from which the instant patent application claims priority (the "932 priority application"). As evidenced by Dr. Hecht's declaration, those of skill in the art would have understood that the 932 priority application (which was filed five years before the issue date of the Draper patent and nine months before the Draper patent's earliest effective filing date) provides written description support for the full breadth and scope of the claimed oligonucleotides (Hecht Dec. ¶¶ 11-13).


In view of the evidence of record, Applicants respectfully request acknowledgment of the claim of priority and withdrawal of the rejection under 35 U.S.C. § 102, as the Draper patent is not a proper reference.

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PATENT

Applicants submit that the foregoing constitutes a complete response and a *bona fide* attempt to advance prosecution. The undersigned invites the Examiner to contact her at the number below should there be any questions.

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Emma R. Dailey
Registration No. 48,491

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439